

RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFF	FFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFF	FFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFF	FFFFFFFFFFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFF	FFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFF	FFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFF	FFFFFFFFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	

```
FFFFFFFFF  000000  000000  BBBB8888  000000  TTTTTTTTTT
FFFFFFFFF  000000
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FFFFFFFFF  00      00  00      00  BBBB8888  00      00  TT
FFFFFFFFF  00      00  00      00  BBBB8888  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
FF          00      00  00      00  BB      BB  00      00  TT
          000000  000000  BBBB8888  000000  TT
          000000  000000  BBBB8888  000000  TT
                                     ....
                                     ....
                                     ....
                                     ....
```

```
LL          IIIIII  SSSSSSSS
LL          IIIIII  SSSSSSSS
LL          II      SS
LL          II      SS
LL          II      SS
LL          II      SS
LL          II      SSSSSS
LL          II      SSSSSS
LL          II      SS
LL          II      SS
LL          II      SS
LL          II      SS
LLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLL  IIIIII  SSSSSSSS
```

```
1 0001 0 MODULE foobot ( IDENT = 'V04-000'
2 P 0002 0 %BLISS32[, ADDRESSING_MODE (EXTERNAL = LONG_RELATIVE,
3 0003 0 NONEXTERNAL = LONG_RELATIVE)]
4 0004 0 ) =
5 0005 1 BEGIN
6 0006 1
7 0007 1 *****
8 0008 1 *
9 0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
10 0010 1 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
11 0011 1 * ALL RIGHTS RESERVED.
12 0012 1 *
13 0013 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
14 0014 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
15 0015 1 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
16 0016 1 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
17 0017 1 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
18 0018 1 * TRANSFERRED.
19 0019 1 *
20 0020 1 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
21 0021 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
22 0022 1 * CORPORATION.
23 0023 1 *
24 0024 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
25 0025 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1
31 0031 1 ++
32 0032 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
33 0033 1
34 0034 1 ABSTRACT:
35 0035 1
36 0036 1 Puts as many footnotes as possible at the bottom of the current page.
37 0037 1
38 0038 1 ENVIRONMENT: Transportable
39 0039 1
40 0040 1 AUTHOR: R.W.Friday CREATION DATE: November, 1981
41 0041 1
```



## Revision History

43	0042	1	XSBTTL 'Revision History'
44	0043	1	MODIFIED BY:
45	0044	1	
46	0045	1	004 RER00004 Ron Randall 05-Apr-1983
47	0046	1	For DSRPLUS: Added code for footnote numbering.
48	0047	1	
49	0048	1	003 RER00003 Ron Randall 07-Mar-1983
50	0049	1	Global edit of all modules. Updated module names, ids, etc.
51	0050	1	copyright dates. Changed require files to BLISS library.
52	0051	1	--
53	0052	1	

## Module Level Declarations

```
.. 55      0053 1  XSBTTL 'Module Level Declarations'
.. 56      0054 1
.. 57      0055 1  TABLE OF CONTENTS:
.. 58      0056 1
.. 59      0057 1  FORWARD ROUTINE
60      0058 1  FOOBOT : NOVALUE;
61      0059 1
62      0060 1  INCLUDE FILES:
63      0061 1
64      0062 1  LIBRARY 'NXPOR:XPORT';      ! XPORT Library
65      0063 1  REQUIRE 'REQ:RNODEF';      ! RUNOFF variant definitions
66      0194 1
67      U 0195 1  XIF DSRPLUS XTHEN
68      U 0196 1  LIBRARY 'REQ:DPLLIB';      ! DSRPLUS BLISS Library
69      0197 1  XELSE
70      0198 1  LIBRARY 'REQ:DSRLIB';      ! DSR BLISS Library
71      0199 1  XFI
72      0200 1
73      0201 1
74      0202 1  MACROS:
75      0203 1
76      0204 1  This macro makes certain that when blank lines at the top or bottom
77      0205 1  of a page are skipped change bars don't get output.
78      0206 1
79      0207 1  MACRO
80      M 0208 1  NO_BAR SKIP (N) =
81      M 0209 1  BEGIN
82      M 0210 1  LOCAL
83      M 0211 1  HOLD_BARS;
84      M 0212 1
85      M 0213 1  HOLD_BARS = .TSF_BARS;
86      M 0214 1  TSF_BARS = FALSE;
87      M 0215 1  USKIPL (N);
88      M 0216 1  TSF_BARS = .HOLD_BARS;
89      0217 1  END X;
90      0218 1
91      0219 1  EXTERNAL REFERENCES:
92      0220 1
93      0221 1  EXTERNAL
94      0222 1  FNCT      : FNCT DEFINITION,      ! Footnote control table.
95      0223 1  FNESIZ   : FN_EXT SIZE DEFINITION,
96      0224 1  HCT      : HCT DEFINITION,
97      0225 1  PHAN     : PHAN DEFINITION,
98      0226 1  TSF      : TSF_DEFINITION;
99      0227 1
100     0228 1  EXTERNAL LITERAL
101     0229 1  RNFFWF;
102     0230 1
103     0231 1  EXTERNAL ROUTINE
104     0232 1  ERML,
105     0233 1  FOOOUT,
106     0234 1  TPFFIT,
107     0235 1  TPFSKP,
108     0236 1  USKIPL;
109     0237 1
```

```
111 0238 1 GLOBAL ROUTINE foobot : NOVALUE =
112 0239 1
113 0240 1 ++
114 0241 1 FUNCTIONAL DESCRIPTION:
115 0242 1
116 0243 1 See ABSTRACT, above.
117 0244 1
118 0245 1 FORMAL PARAMETERS: None
119 0246 1
120 0247 1 IMPLICIT INPUTS: None
121 0248 1
122 0249 1 IMPLICIT OUTPUTS: None
123 0250 1
124 0251 1 ROUTINE VALUE:
125 0252 1 COMPLETION CODES: None
126 0253 1
127 0254 1 SIDE EFFECTS: None
128 0255 1 --
129 0256 1
130 0257 2 BEGIN
131 0258 2
132 0259 2 |
133 0260 2 | See if there are any footnotes to be output.
134 0261 2 |
135 0262 2 IF (.FNCT_READY NEQ 0)
136 0263 2 THEN
137 0264 2
138 0265 2 |
139 0266 2 | See if these footnotes should be output now.
140 0267 2 | Check for two cases:
141 0268 2 | one in which there's a footnote that's too big to fit on the page,
142 0269 2 | and the other in which there's no such error.
143 0270 2 |
144 0271 2 | Skip over old footnotes, consider the first ready footnote.
145 0272 2 |
146 0273 2 IF .FNESIZ [.FNCT_OLD] GTR
147 0274 2 (.PHAN_LLLINES + .HCT_LAYOUTN -
148 0275 2 (IF .HCT_HEADERS
149 0276 2 THEN ! 3 is title line + 2 blank lines.
150 0277 2 3 + (IF .HCT_SUBTITLE THEN 1 ELSE 0)
151 0278 2 ELSE
152 0279 2 0)
153 0280 2
154 U 0281 4 XIF DSRPLUS XTHEN
155 U 0282 4 - (IF .FNCT_NUMBERING THEN 1 ELSE 0)
156 0283 4 XFI
157 0284 4
158 0285 3 )
159 0286 2 THEN
160 0287 2
161 0288 2 | The first ready footnote is so lengthy that it requires
162 0289 2 | more space than allowed per page of the document,
163 0290 2 | so force it out now and complain to the user.
164 0291 2
165 0292 2 BEGIN
166 0293 2 ERML (RNFFWF);
167 0294 2 FOOTOUT (1) ! Dump one footnote, namely the bad one.
```



```
168 0295 3
169 0296
170 0297
171 0298
172 0299
173 0300
174 0301
175 0302
176 0303
177 0304
178 0305
179 0306
180 0307
181 0308
182 0309
183 0310
184 0311
185 0312
186 0313
187 0314
188 0315
189 0316
190 0317
191 0318
192 0319
193 0320
194 0321
195 0322
196 0323
197 0324
198 0325
199 0326
200 0327
201 0328
202 0329
203 0330
204 0331 1
```

```
END
ELSE
    These footnotes are not too lengthy, so see if there is
    space at the bottom of the page to output them now.
    BEGIN
    LOCAL
        HOW_MANY_FIT;

        Find out how many footnotes of the ready ones can fit.
    HOW_MANY_FIT = TPFFIT ();
    IF (.HOW_MANY_FIT NEQ 0)
    THEN
        There are some footnotes that will fit. Output them.
        BEGIN
        LOCAL
            HOLD_PAGING;

            HOLD_PAGING = .PHAN_PAGING;
            PHAN_PAGING = FALSE;

            Position to proper location on page.
        NO_BAR_SKIP (TPFSKP (.HOW_MANY_FIT));
        FOOTOUT (.HOW_MANY_FIT); ! Generate the footnotes now.
        PHAN_PAGING = .HOLD_PAGING;
        END
    END;

! End of routine FOOBOT
```

END;

```
.TITLE FOOBOT
.IDENT \V04-000\
```

```
.EXTRN FNCT, FNESIZ, HCT
.EXTRN PHAN, TSF, RNFFWF
.EXTRN ERML, FOOTOUT, TPFFIT
.EXTRN TPFSKP, USKIPL
```

```
.PSECT $CODE$,NOWRT,2
```

```
01FC 00000
58 00000000G EF 9E 00002
57 00000000G EF 9E 00009
56 00000000G EF 9E 00010
55 00000000G EF 9E 00017
    00000000G EF D5 0001E
    00000000G 4C 13 00024
50 00000000G EF D0 00026
```

```
.ENTRY FOOBOT, Save R2,R3,R4,R5,R6,R7,R8
MOVAB TSF, R8
MOVAB FOOTOUT, R7
MOVAB HCT+32, R6
MOVAB PHAN+40, R5
TSTL FNCT+4
BEQL 6$
MOVL FNCT+12, R0
```

: 0238

: 0262

: 0273

52	DC	B5	66	C1	0002D	ADDL3	HCT+32, @PHAN+4, R2	0274
		10	B6	E9	00032	BLBC	@HCT+8, 3\$	0275
		05	B6	E9	00036	BLBC	@HCT+24, 1\$	0277
		51	01	D0	0003A	MOVL	#1, R1	
			02	11	0003D	BRB	2\$	
		51	51	D4	0003F	CLRL	R1	
			03	C0	00041	ADDL2	#3, R1	
		51	02	11	00044	BRB	4\$	
		52	51	D4	00046	CLRL	R1	0275
		52	51	C2	00048	SUBL2	R1, R2	
	00000000GEF	40	40	D1	0004B	CMPL	FNESIZE[R0], R2	0274
		13	13	15	00053	BLEQ	5\$	
	00000000G	EF	8F	DD	00055	PUSHL	#RNFFWF	0293
			01	FB	0005B	CALLS	#1, ERML	
		67	01	DD	00062	PUSHL	#1	0294
			01	FB	00064	CALLS	#1, FOOOUT	
				04	00067	RET		
	00000000G	EF	00	FB	00068	CALLS	#0, TPFFIT	0308
		53	50	D0	0006F	MOVL	R0, HOW_MANY_FIT	
			38	13	00072	BEQL	7\$	0310
		54	B5	D0	00074	MOVL	@PHAN+40, HOLD_PAGING	0319
			B5	D4	00078	CLRL	@PHAN+40	0320
		50	68	D0	0007B	MOVL	TSF, R0	0324
52	7C	A0	00	EF	0007E	EXTZV	#0, #1, 124(R0), HOLD_BARS	
		7C	01	8A	00084	BICB2	#1, 124(R0)	
			53	DD	00088	PUSHL	HOW_MANY_FIT	
	00000000G	EF	01	FB	0008A	CALLS	#1, TPFSRP	
			50	DD	00091	PUSHL	R0	
	00000000G	EF	01	FB	00093	CALLS	#1, USKIPL	
		50	68	D0	0009A	MOVL	TSF, R0	
7C	A0	01	52	F0	0009D	INSV	HOLD_BARS, #0, #1, 124(R0)	
			53	DD	000A3	PUSHL	HOW_MANY_FIT	0325
		67	01	FB	000A5	CALLS	#1, FOOOUT	
			54	D0	000A8	MOVL	HOLD_PAGING, @PHAN+40	0326
	00	B5		04	000AC	RET		0331

; Routine Size: 173 bytes, Routine Base: \$CODE\$ + 0000

: 205 0332 1  
: 206 0333 1 END  
: 207 0334 0 ELUDOM

! End of module

## PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	173	NOVEC,NOWRT, RD, EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)



## Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
;\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	0	0	252	00:00.1
;\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	20	1	86	00:00.3

## COMMAND QUALIFIERS

; BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:FOOBOT/OBJ=OBJ\$:FOOBOT MSRC\$:FOOBOT/UPDATE=(ENH\$:FOOBOT)

; Size: 173 code + 0 data bytes  
; Run Time: 00:04.5  
; Elapsed Time: 00:14.5  
; Lines/CPU Min: 4453  
; Lexemes/CPU-Min: 13266  
; Memory Used: 51 pages  
; Compilation Complete



0341

DIGITAL EQUIPMENT CORPORATION  
CONFIDENTIAL AND PROPRIETARY